TWO ADDITIONAL SPECIES OF NOTAULACELLA ENDERLEIN (DIPTERA: CHLOROPIDAE) FROM PANAMA

CURTIS W. SABROSKY

Cooperating Scientist, Systematic Entomology Laboratory, PSI, Agricultural Research Service, U.S. Department of Agriculture, Washington, DC 20560, U.S.A. Present address: 205 Medford Leas, Medford, NJ 08055, U.S.A.

Abstract.—Two new species, *Notaulacella trivittata* and *N. argentigena*, are described from material obtained during canopy fogging in humid forests in Panama, adding to Sabrosky's 1994 revision of the genus.

Key Words: Taxonomy, Diptera, Chloropidae, Notaulacella, new species, canopy fogging

A synopsis of the distinctive genus Notaulacella Enderlein was recently published (Sabrosky 1994), based chiefly on material collected during fogging of high forest canopy at two localities in Panama. In labeling the entire collection, it was discovered that further material of the genus had been misplaced and inadvertently overlooked. Two new species are described here, one of which had been included in the published key but left unnamed because of inadequate material. The 1994 paper contains the generic description and notes on the canopy collecting. Types of the new species are in the National Museum of Natural History, Washington, D.C.

Both new species are in the first part of the key (thorax yellow), and that part has been revised, with a subletter used to avoid upsetting the numbering in the remaining larger portion of the key.

PARTIAL REVISED KEY TO CENTRAL AMERICAN NOTAULACELLA

1.	Thorax chiefly or entirely yellow to orange-
	yellow, or reddish
_	Thorax largely black or black-brown, or al-
	most entirely so 8
2.	Scutum with three or four stripes 2a

_	Scutum unicolorous, without stripes 3
2a.	Scutum with four relatively narrow stripes,
	plus supra-alar vittula on each side
_	Scutum with three broad stripes, obscurely
	separate on dorsocentral lines
3.	Frontal triangle yellow; fore femur distally
	with row of short, stout black setae antero-
	and posteroventrally N. spinosa Sabrosky
_	Frontal triangle black or dark reddish, in strik-
	ing contrast to yellowish thorax; fore femur
	with fine hairlike setae 4
4.	Frontal triangle dull or dully shining, gray mi-
	crotomentose 5
-	Frontal triangle smooth and polished 6
5.	Frontal triangle broad and long, acute apex
	almost at anterior margin of frons; frons yel-

Frontal triangle narrowly acute to middle of

low outside of triangle N. buscki Sabrosky

- 7. Fore tarsus yellowish N. cabimae Sabrosky

Notaulacella trivittata Sabrosky, New Species

Diagnosis.—Scutum with 3 broad, reddish-brown, thinly microtomentose stripes.

Female. Head partly black or dark reddish brown to blackish, including back of head, frontal triangle, frons posteriorly, flanking the triangle, narrow lower edge of gena, median plate of clypeus, arista, and cephalic setae; 3rd antennal segment infuscate on distal half; rest of head yellow, the gena whitish microtomentose. Thorax chiefly dark reddish brown, the humeri and scutellum whitish yellow; thoracic setae black. Abdomen brownish yellow, tergites narrowly black margined laterally. Legs chiefly yellow, with 2 narrow fuscous bands on each tibia.

Frons slightly longer than broad; frontal triangle short and narrow, apex at or barely beyond midpoint of frons, smooth and polished mesally, with narrow band of brownish microtomentum along sides; gena narrow, less than ½ breadth of 3rd antennal segment and 0.07 times height of an eye. Scutum with three broad stripes, obscurely separated by slight grooves on dorsocentral lines. Legs slender, fore femur without spines.

Holotype female, Panama (Canal Zone), E shore of Gatun Lake, near Colón, humid forest, canopy fogging Tree 8, 2–14 July 1979 (E. C. Broadhead).

Etymology. The specific epithet is an adjective referring to the three-striped scutum.

This species, with dark reddish thorax, disturbs the easy division between species with yellow thorax and those with black thorax. It is definitely not black and it is conveniently associated with the lighter colored species. The three broad stripes are quite unlike the four narrow stripes of *N. vittata*, which was described as "the only vittate yellow species known in Central America."

Notaulacella argentigena Sabrosky, New Species

Notaulacella n. sp. no. 19 Sabrosky 1994: 431, 433.

Diagnosis.—Thorax yellow; frontal triangle black, short, smooth and polished; gena broad and brilliantly silvery microtomentose.

Male, female. Head predominantly yellow, only back of head, frontal triangle chiefly, arista, and setae black; gena conspicuously brilliantly silvery microtomentose. Thorax orange yellow or yellowish, setae black. Legs yellow, all tibiae with 2 narrow fuscous bands, the distal band well before apex of tibia; fore basitarsus fuscous except for narrow apex, the remaining tarsomeres whitish yellow.

Frons square, the frontal triangle moderately short, apex slightly beyond middle of frons; gena relatively broad, $\frac{3}{5}$ breadth of 3rd antennal segment and $\frac{1}{6}$ height of an eye. Fore femur without spines.

Holotype male, Panama (Canal Zone), E shore of Gatun Lake, near Colón, humid forest, canopy fogging Tree 3, 2–14 July 1979 (E. C. Broadhead).

Allotype, same data, but Tree 6. Paratypes: 2 males, 2 females, same data as holotype; 3 males, 1 female, same data except males from Trees 1, 4 and 6, female from Tree 7.

Etymology. The specific epithet, a noun, is derived from the Latin *argenteus*, silvery, and *gena*, cheek.

In several respects, this species resembles *N. cabimae* and *N. albitarsis*, but both of these have long frontal triangle and narrower gena, neither approaching the brilliantly silvery gena of *argentigena*. The fore tarsus of the new species is suggestive of *N. albitarsis*, but the fore tibia of that species has only the distal third infuscate, whereas *N. argentigena* has the two-banded appearance found in a number of other species of the genus, and the distal third is yellow.

LITERATURE CITED

Sabrosky, C. W. 1994. A synopsis of the genus *Notaulacella* Enderlein in Central America: The diversity of a canopy fauna (Diptera, Chloropidae). Proceedings of the Entomological Society of Washington 96: 428–439.